

PROJECT DESCRIPTION

- I. GENERAL
THIS PROJECT INVOLVES THE INSTALLATION OF TRAFFIC CONTROL SIGNALS WITH A FULL-TRAFFIC-ACTUATED SIGNAL AND STREET LIGHTING AT MD ROUTE 2 AND ADMIRAL COCHRANE DRIVE/LAKE SHORE DRIVE IN ANNE ARUNDEL COUNTY. A TRAFFIC SIGNAL INTERCONNECT IS ALSO PROPOSED AT THE INTERSECTIONS OF EASTBOUND MD ROUTE 665 RAMPS/MD ROUTE 2 AND MD ROUTE 665 WESTBOUND RAMPS AND MD 2. MD ROUTE 2 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.
- II. INTERSECTION OPERATION
THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE, WITH THE MD ROUTE 2 APPROACHES RUNNING CONCURRENTLY AND THE SIDE-STREET APPROACHES NOT RUNNING CONCURRENTLY. NO CHANGE TO THE EXISTING SIGNAL OPERATIONS ARE REQUIRED.
- III. CONTROLLER REQUIREMENTS
INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH FOUR (4) FOUR-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, AND ASSOCIATED HARNESSSES HOUSED IN A NEMA SIZE '6' BASE MOUNTED CABINET.
- IV. SPECIAL NOTE
UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARD NUMBERS SHALL BE REFERENCED FOR THE PROJECT:

STANDARD NO. MD-105.00	STANDARD NO. MD-105.03 (INTERSECTION FLAGGING OPERATION)
STANDARD NO. MD-105.01	STANDARD NO. MD-105.105 (SHOULDER WORK)
STANDARD NO. MD-105.02	STANDARD NO. MD-105.107 (LANE SHIFT)
STANDARD NO. MD-105.101	STANDARD NO. MD-105.109 (LANE SHIFT)

STANDARDS TO BE MODIFIED BY REPLACING W21-5 SIGN WITH A W20-1 SIGN (ROAD WORK AHEAD).

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #5 ARE AS FOLLOWS:

MR. PAUL ARMSTRONG DISTRICT ENGINEER PHONE # (410) 841-5450	MR. LAWRENCE ELLIOTT ASST. DISTRICT ENGINEER-TRAFFIC PHONE # (410) 841-5450	MS. LORETTA LASER BALTIMORE GAS & ELECTRIC COMPANY 1068 NORTH FRONT STREET, ROOM 200 BALTIMORE, MARYLAND 21202 PHONE # (410) 291-3136
MR. CHUCK GEORGE ASST. DISTRICT ENGINEER-MAINTENANCE PHONE # (410) 841-5450	MR. JOHN MAYS ASST. DISTRICT ENGINEER-UTILITY PHONE # (410) 841-5450	
MR. RICHARD L. DAFF, SR. CHIEF, TRAFFIC OPERATIONS DIVISION PHONE # (410) 787-7630	MR. ERNEST L. HODSHON ASST. DISTRICT ENGINEER-MAINTENANCE PHONE # (410) 841-5450	

GENERAL NOTES

1. ALL PAVEMENT MARKINGS DETAILED ARE TO BE INSTALLED ACCORDING TO THE PERMANENT PAVEMENT MARKING AND SIGNING PLAN AND SHA STANDARDS.
2. LOOP DETECTORS AND CONDUIT ARE TO BE INSTALLED PRIOR TO INSTALLATION OF PAVEMENT MARKINGS.
3. CONTRACTOR SHALL VERIFY LOCATION OF NEW GEOMETRICS PRIOR TO INSTALLATION OF SIGNAL EQUIPMENT.
4. WITHIN 18" OF UNDERGROUND UTILITY LOCATIONS, THE CONTRACTOR SHALL BE REQUIRED TO EXCAVATE FOR FOUNDATION AND CONDUIT BY HAND.
5. CONTRACTOR SHALL VERIFY LOCATION OF WATER LINE ON WEST SIDE OF ADMIRAL COCHRANE DRIVE PRIOR TO CONSTRUCTION OF SIGNAL POLE FOUNDATION ON THAT SIDE OF THE ROAD.
6. ALL SIGNAL WORK IS WITHIN SHA OR ANNE ARUNDEL COUNTY RIGHT-OF-WAY.
7. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
8. ALL STOP LINE AND CROSSWALK MARKINGS ARE TO BE INSTALLED ACCORDING TO SHA STANDARDS.
9. ALL OTHER MARKINGS SHOWN ON THESE SIGNAL PLANS ARE TO BE INSTALLED ACCORDING TO THE PERMANENT PAVEMENT MARKING AND SIGNING PLAN AND SHA STANDARDS AND WILL BE PERFORMED BY OTHERS.

ITEM	QUANTITY	DESCRIPTION
9001	6 EA	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR SPAN MOUNTING AND TUNNEL VISORS
9002	4 EA	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR SPAN MOUNTING AND TUNNEL VISORS
9003	4 EA	12 IN., ONE-WAY, FOUR-SECTION (R,Y,G,G) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR SPAN MOUNTING AND TUNNEL VISORS
9004	2 EA	12 IN., ONE-WAY, TWO-SECTION (SYMBOL W,D,W) PEDESTRIAN TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR POLE MOUNTING
9005	1 EA	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH <u>TELEMETRY MODULE, SYSTEM PACKAGE</u> HOUSED IN A NEMA SIZE '6' BASE MOUNTED CABINET
9006	4 EA	FOUR-CHANNEL, TIME DELAY OUTPUT, LOOP DETECTOR AMPLIFIER
9007	136 SF	SHEET ALUMINUM SIGNS TO CONSIST OF: - 4 EACH D3-2 SIGN (VARIABLE X 16 IN.) - SPAN WIRE MOUNT - 1 EACH R3-5(L) SIGN (24 IN. X 30 IN.) - SPAN WIRE MOUNT - 1 EACH R3-5(R) SIGN (24 IN. X 30 IN.) - SPAN WIRE MOUNT - 1 EACH R3-6 SIGN (24 IN. X 30 IN.) - SPAN WIRE MOUNT - 1 EACH R10-11(B) SIGN (24 IN. X 24 IN.) - SPAN WIRE MOUNT - 1 EACH V3-3 SIGN (36 IN. X 36 IN.) - GROUND MOUNT - 1 EACH V3-3 SIGN (48 IN. X 48 IN.) - GROUND MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY - 'NORTH, MD 2, RIGHT ARROW' (24 IN. x 51 IN.) - POLE MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY - 'NORTH, MD 2, LEFT ARROW' (36 IN. x 75 IN.) - POLE MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY - 'SOUTH, MD 2, RIGHT ARROW' (24 IN. x 51 IN.) - POLE MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY - 'SOUTH, MD 2, LEFT ARROW' (36 IN. x 75 IN.) - POLE MOUNT - 2-EACH 36" X 36" W11A-2 PED. X-ING GROUND MOUNTED - 2-EACH 21" X 15" M16-2 ARROW GROUND MOUNTED

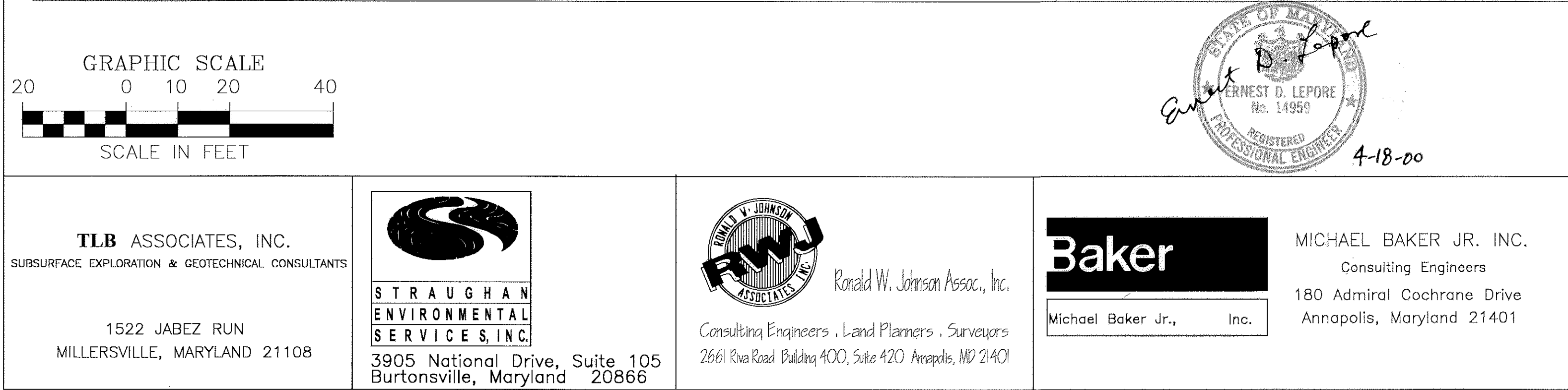
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FIWA REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD	SEE TITLE SHEET	2	5

EQUIPMENT LIST 'B'

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM	QUANTITY	UNITS	SPECIFICATION		DESCRIPTION
			SECTION		
1001	1	EA	104		MAINTENANCE OF TRAFFIC
2001	3	CY	205		TEST PIT EXCAVATION
5001	170	LF	555		24 IN. WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
5002	290	LF	555		12 IN. WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
8001	11	CY	801		FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8002	16	EA	814		INSTALL SIGNAL HEAD - ANY TYPE
8003	1	EA	816		INSTALL CONTROLLER AND BASE-MOUNTED CABINET
8004	960	LF	815		FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8005	90	LF	805		FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8006	1,600	LF	805		FURNISH AND INSTALL 2 IN. ELECTRICAL CONDUIT SCHEDULE 80 - TRENCHED
8007	100	LF	805		FURNISH AND INSTALL 3 IN. ELECTRICAL CONDUIT SCHEDULE 80 - TRENCHED
8008	25	LF	805		FURNISH AND INSTALL 4 IN. ELECTRICAL CONDUIT SCHEDULE 80 - TRENCHED
8009	180	LF	805		FURNISH AND INSTALL 4 IN. ELECTRICAL CONDUIT SCHEDULE 80 - BORED
8010	12	EA	811		FURNISH AND INSTALL ELETRICAL HANDHOLE
8011	5	EA	804		FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8012	2,950	LF	810		FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8013	1,325	LF	810		FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR ALUMINUM SHIELDED (NO. 14 AWG)
8014	1,450	LF	810		FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 AWG)
8015	350	LF	810		FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 AWG)
8016	750	LF	810		FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 AWG)
8017	50	LF	810		FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
8018	7	EA	810		FURNISH AND INSTALL MICROloop Probe Set w/ 1000' LEAD IN
8019	9	SF	803		RELOCATE OVERHEAD SIGN FROM EXISTING STRUCTURE
8020	95	SF	803		INSTALL OVERHEAD SIGNS
8021	41	SF	803		INSTALL GROUND-MOUNTED SIGNS
8022	36	LF	803		FURNISH AND INSTALL WOOD SIGN SUPPORTS (4 IN. X 4 IN.)
8023	2	EA	808		FURNISH AND INSTALL 20 FT. LIGHTING BRACKET FOR TRAFFIC SIGNAL STRUCTURE
8024	4	EA	818		FURNISH AND INSTALL 12 IN. X 30 FT. STRAIN POLE
8025	450	LF	819		FURNISH AND INSTALL STEEL SPAN WIRE 3/8 IN. DIAMETER
8026	1	EA	807		FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT



MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION - OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION				LOG # 000000.00	
DRAWN BY DES. BY CHK. BY	<u>R. ZELLNER</u> <u>B. BIDDLE</u> <u>B. BIDDLE</u> <i>mar</i>	MD ROUTE 2 (SOLOMON'S ISLAND ROAD) AND ADMIRAL COCHRANE DRIVE TRAFFIC SIGNAL PLAN <i>Bwagames</i> Δ		COUNTY: <u>ANNE ARUNDEL</u>	
DATE: <u>12-1-99</u> SCALE: <u>1" = 20'</u>	F.A.P. NO. <u>SEE TITLE SHEET</u> S.H.A. NO. <u>SEE TITLE SHEET</u>	TS/FILE NO. <u>TS-3376.6I</u>		SHEET <u>71</u> OF <u>90</u>	